KHRUSTALEV, I.K., dots.

Efficient shape of skips for coal mines with vertical shafts. Izv.vys,ucheb.mav.; gor.mhur. no.1:109-115 '59. (MIRA 13:1)

1. Sibirskiy metallurgicheskiy institut. Rekomendovana kafedroy gornoy elektromekhaniki.

(Mine hoisting)

KHRUSTALEV, I.K., dots.

Performance of unbulanced skip hoisting equipment with asynchronous electric drives. Izv.vys.ucheb.zav.; gor.zhur. no.1:116-125 '59. (MIRA 13:1)

1. Sibirskiy metallurgicheskiy institut. Rekomendovana kafedroy gornoy elektrotekhniki.
(Hoisting machinery—Electric driving)

# Automatic skip hoiet. Isv.Sib.otd.AN SSSR no.10:37-48 '59. (MIRA 13:4) 1. Sibirskiy metallurgicheskiy institut, g. Stalinsk. (Mine hoisting)

### KHRUSTALEV, I.K., dotsent

Acceptable speed for the landing of skip hoisting machines on the carriage of a coal loader. Izv. vys. ucheb. zav.; gor. zhur. no. 11:187-192 '60. (MIRA 13:12)

1. Sibirskiy metallurgicheskiy institut imeni S. Ordzhonikidse. Rekomendovana kafedroy gornoy elektrotekhniki Sibirskogo metallurgicheskogo instituta.

(Coal mines and mining--Equipment and supplies)

(Hoisting machinery)

### "APPROVED FOR RELEASE: 03/13/2001

### CIA-RDP86-00513R000722410015-9

### KHRUSTALEV, I.K., dotsent\_\_\_

Mine resistances in the operation of hoists. Izv. vys. ucheb. zav.; gor. zhur. 5 no.1:165-169 '62. (MIRA 15:4)

1. Sibirskiy metallurgicheskiy kombinat imeni S. Ordzhonikidze Rekomendovana kafedroy gornoy elektrotekhniki Sibirskogo metallurgicheskogo instituta. (Mine hoisting)

CIA-RDP86-00513R000722410015-9" **APPROVED FOR RELEASE: 03/13/2001** 

KHRUSTALEV, I.K., kend. tekhn. nauk

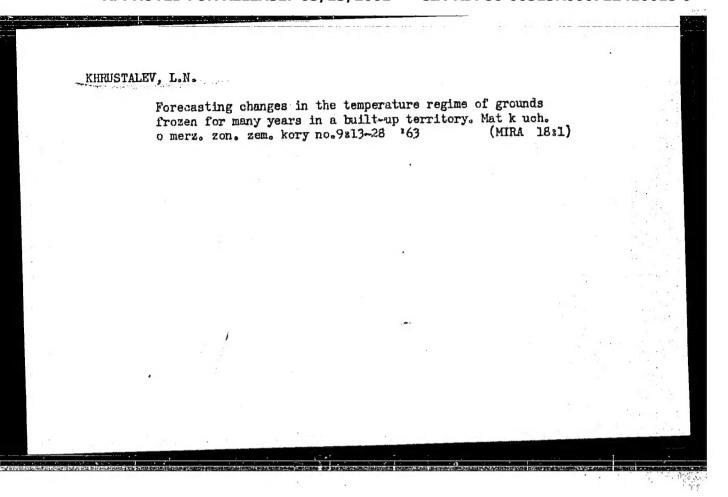
Profitableness of skip hoisting equipment for hydraulic coal mines. Trudy VNIIGidrouglia no.3:128-137 '63 (MIRA 18:2)

1. Sibirskly metallurgicheskiy institut.

KHRUSTALEV, I.K., dotsent; KUZNETSOV, N.Ye., dotsent; TURNAYEV, P.I., inzh.

Automatic drive of mine hoisting machines with electromagnetic clutches. Izv. vys. ucheb. zav.; gor. zhur. 8 no.7:180-184 165. (MIRA 18:9)

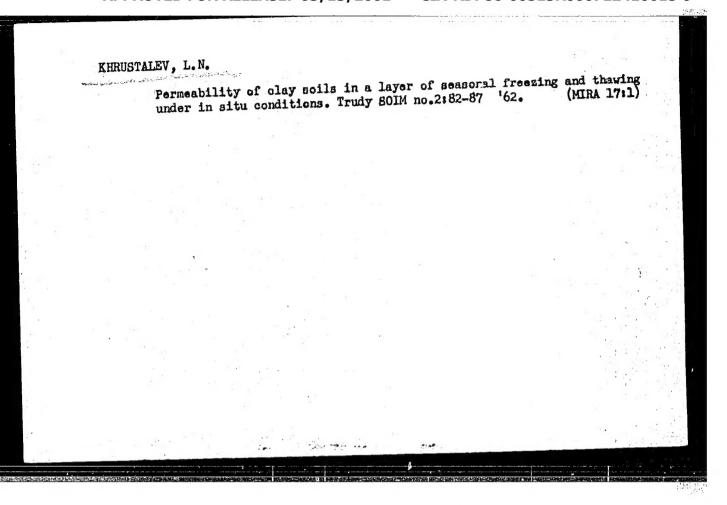
1. Sibirskiy metallurgicheskiy institut imeni Ordzhonikidze. Rekomendovana kafedroy obshchey elektrotekhniki Sverdlovskogo gornogo instituta.



BAKALOV, S.A.; BELOUSOV, V.P.; BRATSEV, L.A.; VODOLAZKIN, V.M.;
YEROSHENKO, V.N.; ZHUKOV, V.F.; LUBAN, S.A.; MARKIZOV, L.P.;
NADEZHDIN, A.V.; NOVIKOV, F.Ya.; PONOMAREV, V.D.; POTRASHKOV,
G.D.; ROZHDESTVENSKIY, S.I.; TROFIMOV, S.V.; FEL'DMAN, I.R.;
FOYGEL', D.O.; KHRUSTALEV, L.N.; CHURUKSAYEV, I.I.;
KONDRAT'YEVA, V.I., red.

[Theory and practice in the study of frozen ground in construction] Teoriia i praktika merzlotovedeniia v stroitel'stve. Moskva, Nauka, 1965. 187 p. (MIRA 18:4)

1. Moscow. Nauchno-issledovatel'skiy institut osnovaniy i pod-zemnykh sooruzheniy. Severnoye otdeleniye.



POTRASHKOV, G.D.; KHRUSTALEV, L.H.

Effect of the texture of thawed clay soils on their strength and infiltration properties. Izv.Sib.otd.AN SSSR no.1:31-35 '61. (MIRA 14:2)

1. Severnoye otdeleniye Instituta merzlotovedeniya im.V.A.Obrucheva AN SSSR. (Clay)

# Filtration characteristics of seasonally thaving loamy ground in the Vorkuta region. Mat. k osn. uch. o merz. zon. zem. kory no.7:157-163 '61. (MIRA 14:7) (Vorkuta region—Frozen ground) (Soil percolation)

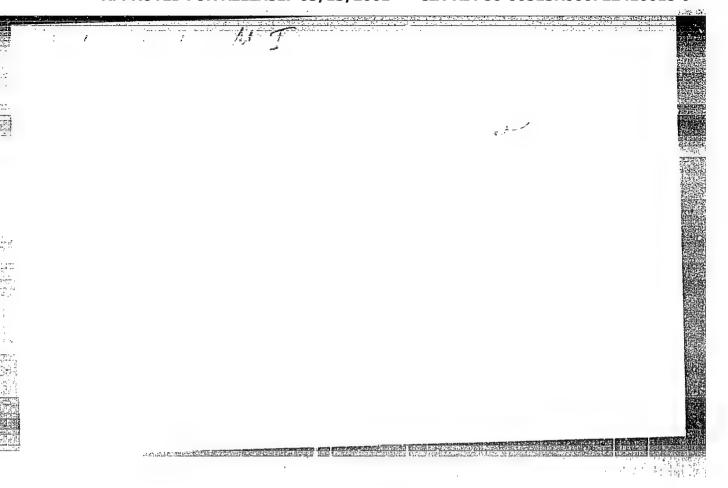
GALAKTIONOV, A.T.; DENISOV, Yu.A.; KOPYTOV, G.T.; MASLOV, Yu.A.; NYKONOV, I.P.; PETUNIN, I.V.; KOCHEVA, G.N.; KUZNETSOV, A.P.; LELEKO, N.M.; RAZIKOV, M.I.; SPESHKOV, V.V.; STEPANOV, B.V., STEPANOV, V.V.; kand. tekhn. neik; SHELCMOV, B.Ye.; YUNYSHEV, G.P.; YES KOV, K.A., dots., retsenzent; BAKSHI, O.A., dots., retsenzent; BEREZKIN, P.N., dots., retsenzent; PATSKEVICH, I.R., dots., retsenzent; RUDAKOV, A.S., dots., retsenzent; FIZHBEYN, N.B., inzh., retsenzent; KHRUSTALEY, L.Ya., Anzh., retsenzent; KRUTIKHOVSKIY, V.G., inzh., red. BOBROV, Ye.I., kand. tekhn. nauk, red. DUGINA, N.A., tekhn. red.

[Welding handbook] Spravochnik raboohego-svarshchika. Pod red. V.V.Stepanova. Moskva, gos. nanchno-tekhnizd-vo mashinostroit. lit-ry, 1960. 640 p. (Welding)

KHRUSTALEV, Leonid Yakovlevich; RAZIKOV, M.I., kand. tekhn. nauk, retsenzent; DENISOV, Yu.A., inzh., red.; DUGINA, N.A., tekhn. red.

[Automatic arc welding and hard facing]Avtomaticheskaia dugovaia svarka i naplavka. Moskva, Mashgiz, 1961. 43 p. (Nauchnopopuliarnaia biblioteka rabochego-svarshchika, no.11) (MIRA 15:3)

(Electric welding) (Hard facing)



KHRUSTALEV, M. I., Candidate of Tech Sci (diss) -- "Fractionation of natural sands for concrete, using hydraulic classifiers". Moscow, 1959. 11 pp (Min Higher Educ USSR, Moscow Order of Labor Red Benner Construction Engineering Inst im V. V. Kuybyshev), 130 copies (KL, No 21, 1959, 117)

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KHRUSTALEV, Mikhail Ivanovich, kand tekhn nauk, starshiy nauchnyy

[Using hydraulic classifiers in fractionating sand and removing clayer particles] Fraktsionirovanie peskov i udalenie iz nikh glinistykh chastits pri pomoshchi gidravlicheskikh klassifikatorov. Moskva, Gosstroiisdat. 1960. 35 p. (MIRA 13:4)

1. Akademiya stroitel'stva i arkhitektury SSSR, Moscow. Institut organizatsii, mekhanisatsii i tekhnicheskoi pomoshchi stroitel'stvu.

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(Sand) (Hydraulic machinery)

KHRUSTALEV, M.I., kand.tekhn.nauk

Hydraulic design of vertical classifiers with a rising flow of clear water. Sbor. trud. NIIZHelezobetona no.3:50-68 '60. (MIRA 15:2)

(Mineralogy--Classification)

KORNEY, N.V., inzh.; KHRUSTALEY, M.I., kand.tekhn.nauk

Comparative tests of hydraulic sand and hydroseparators. Shor. trud. (MIRA 16:3) VNIINerud no.2:20-36 '62.

1. Vsesoyuznyy nauchno-issledovateliskiy institut nerudnykh stroitelinykh materialov i gidromekhanizatsii (for Kornev). 2. Gosudarstvennyy nauchno-issledovatel'skiy institut zhelezobetonnykh izdeliy, stroitel'nykh i nerudnykh materiałov (for Khrustalev). (Separators (Machines)—Testing)

(Sand and gravel plants-Equipment and supplies)

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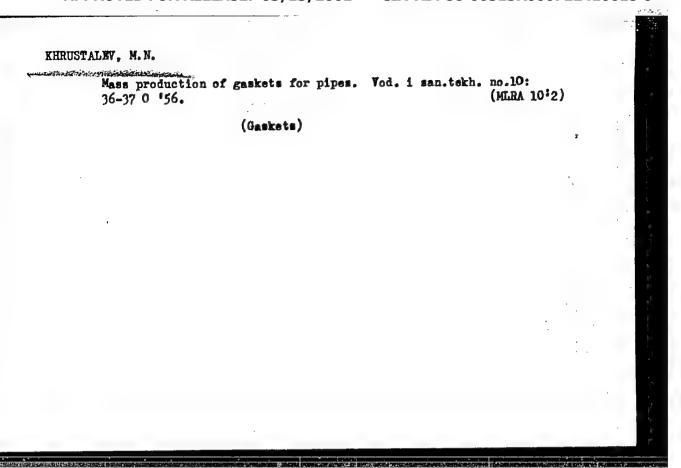
VOLKOV, Valentin Georgiyevich, inzh.; YELSHIN, Igor! Milhaylovich, kand. tekhn. nauk; KHARIN, Arnol'd Ivanovich, kand. tekhn. nauk; KHRUSTALEV, Mikhail Ivanovich, kand. tekhn. nauk; GUREVICH, E.A., red.

[Enriching and fractionating natural sand for concrete by the hydraulic method] Obogashchenie i fraktsionirovanie prirodnykh peskov dlia betona gidravlicheskim sposobom. Moskva, Stroitzdat, 1964. 162 p. (MIRA 18:1)

TSAREVSKIY, A.M., kend.tekhn.nauk; MATKOVSKIY, K.A., inzh.; KHRUSTALEV. M.I., kend.tekhn.nauk

Hydrocyclone, its use and hydraulic calculations. Gidr. i mel. 17 no.4:12-20 Ap '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-isaledovatel'skiy institut gidrotekhniki i melioratsii imeni A.N.kostyakova (for TSarevskiy, Matkovskiy). 2. TSarevskiy, nauchno-isaledovatel'skiy institut transportnogo



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KHRUSTALEV, M.V., deputat Verkhovnogo Soveta Belorusskoy SSR

Everything for mankird. Zhil.-kom. khoz. 11 no.12:4 D '61.

(MIRA 16:11)

1. Pervyy sekretar' Gomel'skogo gorodskogo komiteta Kommunisticheskoy partii Sovetskogo Soyuza.

REPIN, Anatoliy Aleksandrovich; KHRUSTALEV, Nikolay Vladimirovich; KEM, Aleksandr Yegorovich; SVET, Ye.B., red.; KUZHETSOVA, 0.Ya., tekhn. red.

[Anticorrosive acid-resistant materials and coatings in industrial construction in the Urals] Antikorroziinye kislotoupornye materialy i pokrytiia v promyshlennom stroitel'stve Urala. Cheliabinsk, Cheliabinskoe knizhnoe izd-vo, 1963. 154 p. (MIRA 17:1)

(Ural Mountain region-Industrial buildings)

(Corrosion-resistant materials)

(Protective coatings)

### "APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000722410015-9

KHRUSTALEV, N. Ya.

20685. Nichiporovich, A.A. i Kirustalev, N. Ya. O raschete ustoychivostii plotin na neskal'nykh osnovaniyakh - Gidrotekhn. stroit-vo, 1949, No. 6, s. 6-11

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

MICHIPOROVICH, s.A., professor; MRUSTALEV, M.Ys., kendidst tekhnicheskikh nauk; laGAR'KOV, M.I., inzhener, nauchnyy redsktor; SAFOHOV, P.V., redsktor izdstel'stvs; PERSON, M.H., tekhnicheskiy redsktor

[Strength of concrete hydreulic structures built on rockless soils]
Ustoichivost' betonnykh vodopedpornykh scoruzhenii na neskal'nykh gruntakh. Moskva, Gos.izd-vo lit-ry po stroit. i srkhit., 1957.
189 p. (MIRA 10:10)

(Concrete construction)

KHRUSTALEV, N.Ya., kand.tekhn.nauk

Study of the effect of vibrated loads on the resistance to dispalcement of water works constructed on sandy soil. Trudy. Lab. gidr.sooruzh. VODGEO no. 4:124-152 '63. (MIRA 17:6)

29296

S/051/61/011/004/001/004 E032/E514

24.3600 (1144, 1385, 1482)

AUTHORS: Zastavenko, L.G. and Khrustalev, O.A.

TITLE: Application of the interference of quantum levels to the determination of the lifetimes of optical

transitions

PERIODICAL: Optika i spektroskopiya, v.11, no.4, 1961, 441-444

TEXT: The authors discuss the determination of the natural level width from the measured intensity of resonance scattering of light through a given angle as a function of external fields applied to the scattering medium. Two cases are considered, applied to the scattering medium. Two cases are considered, amely 1) electric and magnetic fields parallel, and 2) the case where the excited state levels of the scattering atom are split by the interaction between the electrons and the nuclear spin, and the scattering system is located in an external magnetic field. In the absence of external fields the differential scattering cross-section is given by

 $W = \begin{pmatrix} j & A_m \\ \sum_{m=-j}^{j} & A_m \end{pmatrix}^2$ 

(1) X

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29296
Application of the interference ... S/051/61/011/004/001/004
E032/E514

where j is the angular momentum, m is its z-component and A is the resonance scattering amplitude. In a strong magnetic field each term splits into 2j + 1 levels, which are located symmetrically relative to the level m = 0. Here the cross-section is given by

 $W = \sum_{m=-1}^{J} \left| A_m \right|^2 \tag{3}$ 

If in addition a magnetic field is applied in the direction of the z-axis, the levels with z-components m and -m are equally shifted and the fields can be chosen so that some of the levels with different m will coincide, i.e.  $E_{m_1} = E_{m_2}$  when  $m_1 \neq m_2$ .

This will give rise to interference so that the cross-section becomes

 $W = \begin{vmatrix} A_{m_1} + A_{m_2} \end{vmatrix}^2 - \begin{vmatrix} A_{m_1} \end{vmatrix}^2 - \begin{vmatrix} A_{m_2} \end{vmatrix}^2 + \begin{vmatrix} J_{m_2} \\ M_{m_2} \end{vmatrix}^2$ (4)

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29296

Application of the interference ... s/051/61/011/004/001/004 E032/E514

With a constant electric field, the curve representing the resonance scattering as a function of the magnetic field consists of horizontal sections with narrow extrema corresponding to the partial overlap of levels with different m (Ref. 2: L. G. Zastavenko, M.I. Podgoretskiy, ZhETF, 39, 1023, 1960). In the simple case where only two levels with energies  $\mathbf{E}_1$  and  $\mathbf{E}_2$ interfere, the intensity of the scattered light in the neighbourhood

$$\frac{W}{W_{o}} = 1 + \frac{2\text{Re}(AB^{*}) - 2\text{Im}}{W_{o} \left\{ 1 + \left[ \frac{\tau(E_{1} - E_{2})}{h} \right]^{2} \right\}}$$

where W is the intensity well away from the extremum and A and B depend on the properties of the levels, the polarization of the light and the angle of scattering. For given angles and polarizations, the quantities A and B have the same phase and

Application of the interference ... \$\frac{29296}{5/051/61/011/004/001/004}\$\tag{E032/E514}\$

the intensity near an extremum is given by

$$\frac{W}{W_0} = 1 + \frac{2 |AB|}{W_0 \left[1 + \frac{\tau^2 (E_1 - E_2)^2}{h^2}\right]}$$

The width of this curve depends solely on the natural width of the line and the g-factor. It follows that it can be used to determine the lifetime  $\tau$ . Moreover, it can be shown that the situation is not affected by the Doppler frequency shift due to the motion of the atoms. The second of the above two cases is not discussed in its general form although a formula is derived for the special case of five coincident levels when  $H \rightarrow 0$ . There are figure and 4 references: 3 Soviet and 1 non-Soviet. The English-language reference reads as follows: Ref. 3: F.D. Colegrove. The work was done on the initiative of M. I. Podgoretskiy.

SUBMITTED: December 3, 1960

Card 4/4

X

s/056/62/042/003/019/049 B102/B138

24.6610

AUTHORS:

Okonov, E. O., Podgoretskiy, M. I., Khrustalev.

TITLE:

Gravitational masses of  $K^{O}$  and  $\overline{K}^{O}$  mesons

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,

no. 3, 1962, 770 - 771

TEXT: In connection with the problem of "antigravitation" an experiment is considered to determine the up - down deviation of  $\overline{K}^O$  and  $K^O$  mesons contained in a horizontal  $K_2^O$  meson beam. Such a deviation of the order of

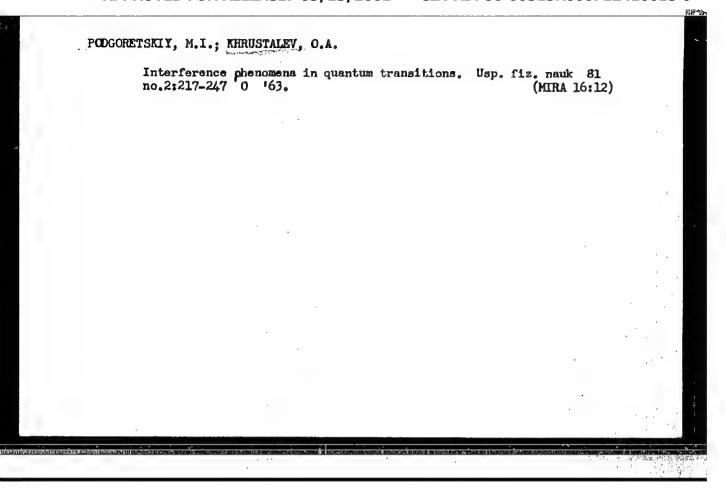
magnitude of de-Broglie wavelength should exist if the gravitational mass of Ko is negative. Estimates of the possible effects show, however, that they are too weak to be detectable. E. g. for the inert mass ratio  $|M(K^{\circ})-M(\overline{K}^{\circ})|/M \le 10^{-17}$  is obtained. D. I. Blokhintsev, V. I. Veksler, V.

A. Nikitin, V. I. Ogiyevetskiy, L. B. Okun', B. M. Pontekorvo, Ya. A. Smorodinskiy and I. Ye. Tamm are thanked for discussions. There are 10 references: 5 Soviet and 5 non-Soviet. The four most recent references to English-language publications read as follows: L. Schiff. Proc. Nat.

Card 1/2

20

Gravitational	masses	s/056/62/042/00 B102/B138	3/019/049	
ot al. Phys.	Rev. 110. 780. 1958:	Phys. Rev. 121, 311, 1961 D. Neagy et al. Proc. of Rochester., Univ. of Roc	the 1960 Ann.	
ASSOCIATION:	Ob"yedinennyy instit tute of Nuclear Rese	tut yadernykh issledovaniy earch))	(Joint Insti-	
SUBMITTED:	January 10, 1961			
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S/056/63/044/002/056/065 B163/B186

;

AUTHORS:

Solov'yev, L. D., Khrustalev, O. A.

TITLE:

Infrared singularities and Regge trajectories in

electrodynamics

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,

no. 2, 1963, 758-760

TEXT: The consequence of a dispersion relation (L.D. Solov'yev, ZhETF, 44, 306, 1963) for photon-electron scattering over a Regge trajectory for the electron-positron-interaction is discussed theoretically along with a generalization of this consequence for the case of particles with unequal masses. The matrix element  $\mathcal{M}_{\lambda}$  for photon-electron scattering, which results from inserting a photon "mass"  $\sqrt{\lambda}$  into the Green photon function, can be written  $\mathcal{M}_{\lambda} = \exp\left[F(t)\right]\mathcal{M}$ , where

$$F((p'-p)^{2}) = \frac{i\alpha}{8\pi^{3}} \int_{-\infty}^{\infty} \frac{dk}{k^{2} - \lambda} \left( \frac{2p' - k}{2p'k - k^{2}} - \frac{2p - k}{2pk - k^{3}} \right)^{2}, \tag{2}$$

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S/056/63/04:/002/056/065 B163/B186

Infrared peculiarities and Regge ...

$$M = \sum_{b=t, \ u} \frac{A_b}{b-m^2} \exp \left[\beta(t) \ln \frac{m^2-b}{m^2} + \gamma(t)\right] + M_a, \tag{3}$$

$$\beta(t) = \frac{\alpha}{n} t \int_{4m^4}^{\infty} \frac{t' - 2m^4}{\sqrt{t'(t' - 4m^4)}} \frac{dt'}{t'(t' - t - t_6)}$$
(4)

In these equations, s, u, and t denote the Mandelstam variables for the direct, crossed and third channel, respectively, and  $\alpha$  is the fine structure constant. The first term in equation (3) is for large s a term of the Regge type with an exponent  $\alpha(t) = -1 + \beta(t)$ , which is represented in the figure. The Regge equation  $\alpha(t) = 1$ ;  $1 = 0, 1, 2, \cdots$  determines bound states in the t-channel, i.e. the electron-positron system. It has solutions only for  $0 < t < 4m^2$  where

$$\alpha(t) = -1 + \frac{\alpha}{\pi} \left[ 1 + \frac{2t - 4m^2}{\sqrt{t(4m^2 - t)}} \operatorname{arctg} \sqrt{\frac{t}{4m^2 - t}} \right]$$
 (7)

These results are generalized for the case of particles with unequal

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Infrared peculiarities and Regge ...

s/056/63/044/002/056/065 B163/B186

masses using dimensional analysis. If a particle with charge ze, mass m and initial and final momenta p and p' reacts with a particle correspondingly characterized by Ze, M, P, and P', the bound states of these particles are found by studying the asymptotic behavior of the scattering matrix element  $\mathcal{M}_{\lambda}$  for  $t \to \infty$ , which must contain a term  $t^{-1}(t/\lambda)^{\beta(s)}$ .

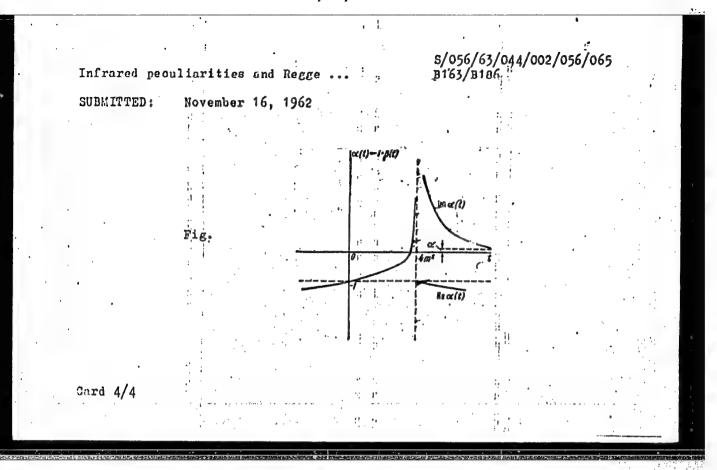
Thus, in order to determine  $\beta(s)$ , it is sufficient to consider the infrared peculiarities of  $M_{\lambda}$ . From this, the Regge exponent  $\alpha(s)$  is derived, which is equal to

$$\alpha(s) = -1 + \frac{\alpha}{\pi} \left[ 1 + 2 \frac{s - m^2 - M^2}{\sqrt{-k(s)}} \operatorname{arclg} \frac{s - (m - M)^2}{\sqrt{-k(s)}} \right]. \tag{14}$$

if  $(m-M)^2 L \le L(m+M)^2$ . Thus the principal Regge trajectory can be obtained, taking into account linear terms in  $\alpha$  which enables a description of the Coulomb interaction. There is 1 figure.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

Card 3/4



8/0056/64/046/003/1079/1089

AUTHOR: Logunov, A. A.; Nguyen, Van Kh'yeu; Todorov, I. T.; Khrustalev, O. A.

TITLE: Asymptotic relations between cross sections in local field theory

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 1079-1089

TOPIC TAGS: local field theory, cross section, asymptotic cross section relations, Phragmen Lindelof theorem, Pomeranchuk theorem, antiparticle, neutral pion scattering, kaon scattering, pion proton scattering, kaon proton scattering

ABSTRACT: It is shown that, by starting from the Phragmen-Lindelof theorem and using the general principles of relativistic local quantum field theory, several asymptotic relations can be established

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not only between the total cross sections of various processes but also their differential cross sections. Starting with the related processes of scattering of scalar particles

$$a_1 + b_1 \rightarrow a_2 + b_2$$
 (1)

$$\overline{a}_2 + b_1 \rightarrow \overline{a}_1 + b_2 \tag{II}$$

(the bar denotes the antiparticle), the asymptotic properties of the scattering amplitude are derived under certain assumptions and, in particular, the Pomeranchuk theorem is obtained for this case. The method is then extended to include the case when the particles b have spin 1/2 while the particles a have spin zero and to process which are described in the e<sup>2</sup> approximation in terms of electromagnetic form factors. All the deductions are based on the assumption that the cross sections do not oscillate at high energies. It is con-

Card 2/4 5

cluded that the differential cross sections of processes (I) and (II) are asymptotically equal, that the total cross sections of interaction of particles and antiparticles are equal if the forward elastic scattering amplitude does not grow too rapidly, that the forward differential scattering cross section is proportional to the square of the total cross section in the case of scattering of neutral pions or kaons by protons, and that the limiting values of the form factor are equal when the momentum transfer (t) becomes infinite. "In conclusion the authors are deeply grateful to N. N. Bogolyubov for interest in the work and for stimulating discussion, and also to S. M. Bilen'kiy, D. I. Blokhintsev, V. S. Vladimirov, M. A. Markov, N. N. Meyman, Kh. Ya. Khristov, and P. Suranyi for useful remarks." Orig. art. has: 43 formulas.

ASSOCIATION: Ob"yedinenny\*y institut yaderny\*kh issledovaniy (Joint Institute of Nuclear Research)

Card 3/4 >

5/0056/64/046/004/1266/1280

AUTHORS: Arbuzov, B. A.; Logunov, A. A.; Filippov, A. T.; Khrustalev. O. A.

St. T. Jack William For

TITLE: The Fredholm method in the relativistic scattering problem

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1266-1280

TOPIC TAGS: particle scattering, relativistic particle, particle spin, Fredholm method, Regge pole, asymptotic property

ABSTRACT: The investigation of the analytic properties and asymptotic form of the amplitudes for elastic scattering of two spinless particles with equal masses, obtained from solutions found by the Fredholm method, are described. The motivation is to develop a method for studying the analytic properties of the scattering amplitude and its asymptotic behavior as a function of the cosine of the scattering angle in the c.m.s. directly, without assuming the exis-

tence of a Mandelstam representation. The problem is treated over a restricted energy range but with arbitrary momentum transfer. The scattering amplitude and the bound states of the particles are described by a Schrodinger-type equation with a generalized complex potential. The analytic properties of the scattering amplitude are studied as a function of the complex energy (or momentum) and angular momentum. The asymptotic form of the partial amplitude is found and it is shown that a transition to the total amplitude is possible by using the Watson-Sommerfeld transformation. The analyticity of the total amplitude as a function of momentum transfer is demonstrated, and conditions for the Regge asymptotic behavior at infinite momentum or angular momentum are formulated. Some of the results which can be gained from the investigation are discussed in the conclusion. "The authors are sincerely grateful to Academician N. N. Bogolyubov for stimulating discussions and also to O. I. Zav'yalov and M. K. Polivanov for valuable information." Orig. art. has: 3 figures and 20 formulas.

Card 2/3

ACCESSION NR: AP4031148

ASSOCIATION: Ob"yedinenny\*y institut yaderny\*kh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 20Jul63 DATE ACQ: 07May64 ENCL: 00

SUB CODE: NP NR REF SOV: 008 OTHER: 011

# KHRUSTALEV, P.

"On American Airfields. Tr. from the Russian. (to be contd.)", P. 334, (KRIDLA VIASTI, Vol. 4, No. 14, July 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EFAL), LC, Vol. 4, No. 1, Jan. 1955, Uncl.

#### KHRUSTALEV, P.

"Folish Aircraft; the Zuch, Successor of the Junak", P. (3) of cover, (KRIDLA VIASTI, Vol. 4, No. 17, Aug. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EFAL), IC, Vol. 4, No. 1, Jan. 1955, Uncl.

LYUBIMOV, V.A., inzh.; Prinimali uchastiye: GULYAYEVA, R., laborant; YEVDOKIMOVA, V., laborant; KHRUSTALEV, P., rabotnik; ZHUKOV, V., rabotnik; CHUMAKOV, M., rabotnik

Automatic AT2-250-Sh loom for woolen fabrics. Nauch.-issl. trudy TSNIIShersti no.17:76-85 '62. (MIRA 17:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut sherstyanoy promyshlennosti (for Gulyayeva, Yevdokimova). 2. Shuyskiy mashinostroitel'nyy zavod (for Chumakov).

AKIMOV, T. S., KHRUSTALEV. P. F.

LOOMS

Varied movement of the warp roller. Tekst. prom. 12 no. 7, 1952.

Monthly List of Russian Accessions. Library of Congress. October 1952. UNCLASSIFIED.

ZHAROVA, Ye.I.; PROTASOVA, T.G.; KHRUSTALEV, S.A.; PREOBRACHENSKAYA, M.N.; SUVOROV, N.N.; RAUSHENBAKH, M.O.

Leukemogenic (blastomogenic) properties of some compounds of the indole series. Report No.2. Probl. gemat. i perel. krovi. no.6:38-42 '65. (MIRA 18:11)

1. TSentral'nyy ordena Lenina institut gematologii i perelivaniya krovi (dir. - dotsent A.Ye.Kiselev) Ministerstva zdravookhraneniya SSSR, i Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevti-cheskiy institut (dir. - prof. M.K.Rubtsov), Moskva.

TSESSARSKAYA, T.P.; OSECHENSKAYA, G.V.; KHRUSTALEV, S.A.

Chromosome changes in leukemia. Report No.1: Chronic myeloid leukemia. Probl. gemat. i perel. krovi 9 no.1:3-10 Ja '64. (MIRA 18:1)

1. Radiobiologicheskaya laboratoriya (zav. - prof. M.O. Raushenbakh) i gematologicheskaya klinika (zav. - prof. M.S. Dul'tsin) TSentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (direktor - dotsent A.Ye. Kiselev).

TSESSARSKAYA, T.P.; OSECHENSKAYA, G.V.; KHRUSTALEV, S.A.

Chromosome changes in leukemia in man. Acute leukemia. Report No.2. Probl. gemat. i perel. krovi 9 no.6:10-15 Je '64. (MIRA 18:2)

l. TSentral'nyy ordena Lenina institut gematologii i perelivaniya krovi (dir.- dotsent A.Ye. Kiselev) Ministerstva zdravookhraneniya SSSR, Moskva.

#### KHRUSTALEV, S.A.

Karyological studies in mouse leukemias. Probl. gemat. i perel. krovi 8 no.11:26-29 N '63. (MIRA 17:12)

1. Iz radiobiologicheskoy laboratorii (zav.- prof. M.O. Raushenbakh) TSentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi (dirketor dotsent A.Ye. Kiselev).

KHRUSTALEV, S. I., Cand Med Sci — (diss) "Effect of preparations of darkening pasqueflower (Pulsatilla) upon reflex activity of the organism." Dnepropetrovsk, 1957. 12 pp (Min of Health UkSSR. Dnepropetrovsk Med Inst), 200 copies (KL, 16-58, 124)

-119-

BATRAK, G.Ye., LIMENKO, V.I., RHRUSTALEV, S.I.

Method for implanting electrodes. Fiziol.zhur. 44 no.10:1001-1003-0 158 (MIRA 12:1)

1. From the department of pharmacology, Medical Institute,
Dnepropetrovsk:

(PHYSIOLOGY,
implantation of electrodes (Rus))

BATRAK, G.Ye.; FURS, I.T.; KHRUSTALEV, S.I.

Pharmacological properties of Pulsatilla nigricans. Farm. i toks.. 22 no.4:320-324 Jl-mg 159. (MIRA 13:1)

1. Kafedra farmakologii (zav. - prof. G.Ye. Batrak) Dnepropetrovskogo meditsinskogo instituta.

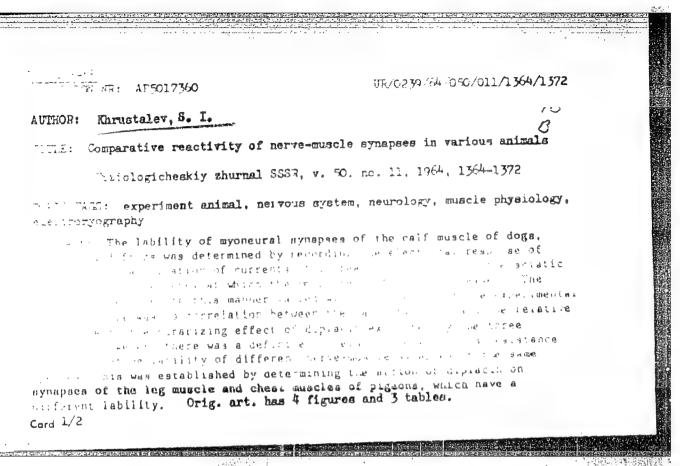
(PLANTS, MEDICINAL pharmacol.)

# Comparative lability of neuromuscular synapses. Farm. i toks. 25 no.1:88-93 Ja-F 162. (MIRA 15:4) 1. Kafedra farmakologii (zav. - prof. G. Ye.Batrak) Dnepropetrovskogo meditsinskogo instituta. (MUSCLES--INNERVATION)

#### KHRUSTALEV, S.I.

Lability of neuromuscular synapses of the gastrocnemius and diaphragm muscles in dogs in ontogenesis. Farm. 1 toks. 25 no.51559-564 S-0 '62 (MIRA 18:1.)

1. Kafedra farmakologii ( zav. - doktor med. nauk prof.
G. Ye. Batrak) Dnepropetrovskogo meditsinskogo instituta.



L 58463-65

ACCESSION NR: AP5017360

ASSOCIATION: Kafedra farmakologii meditsinakogo inatituta, Dnepropetrovak

(Department of Pharmacology, Medical Institute)

SUBMITTED: 15Jul63

ENCL: 00

SUB CODE: LS

NO REF SOV: 009

OTHER: 000

JPRS

Card 2/2

KHRUSTALEV, S. S.

KREMIEV, V. P., Inzhener i KHRUSTALEV, S. S., Kand. Tekhn. nauk St. Nauchno. Sotr. i BOZHENOV, P. I., Kand. Tekhn. nauk i VASIL'KCVSKIY, S. V., Laureat Stalinskoy Premii Prof.
Leningradskiy filial Akademii arkhitektury SSSR.

PREDLOZHENIYA PO ISPOL'ZOVANIYU ESTESTVENNOGO GIPSOVOGO KANIYA DIYA NARY-ZHNYKH OBLITSOVOK.

page 94

SO: Collection of Annotations of Scientific Research Work on Construction, completed in 1950. Moscow, 1951

[Using gypseous stone for building facings] Primenenie gipsovogo kamnia dlie otdelki zdanii. Pod red. V.F.Railiana. Leningrad, Gos.izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953. 41 p. (MIRA 6:12)

(Gypsum) (Façades)

MHRUSTALLV 55

AID P - 3738

Subject

: USSR/Chemistry

Card 1/1

Pub. 152 - 2/22

Authors

: Khrustalev, S. S., M. G. Voronkov, and B. N. Dolgov

Title

: Increase in the water resistance of native gypsum.

Part II.

Periodical

: Zhur. prikl. khim. 28, 9, 916-921, 1955

Abstract

By immersing gypsum (3 varieties) in ethyl silicate for several hours, the hydrophobic properties of gypsum were increased, one variety, 7-10 and two varieties 3 times. By treating gypsum with methylchlorosilane, the hydrophobic properties of gypsum were increased 5-10 times. Five tables, 8 references, 4 Russian (1943-1953).

Institution

None

Submitted

: 0 21, 1953

KHRUSTALEV, Sergey Serapionovich; TSYGANOV, B.Ya., inzh., retsenzent; LOMONOSOV, I.G., st. nauchn. setr., retsenzent; SATIN, M.S., st. nauchn. sotr., etv. red.; BEZGODOVA, L.V., red.

[Building. Building materials; a textbook for students of the faculties of Forestry Engineering, the Mechanical Technology of Wood, Forest Management, Chemical Technology, and Engineering Economical Stroitel'noe delo. Stroitel'nye materialy; uchebnoe posobie dlia studentov fakul'teto lesoinzhenernogo, mekhanicheskoi tekhnologii drevesiny, lesokhoziaistvennogo, khimiko-tekhnologicheskogo, inzhenerno-ekonomicheskogo. Leningrad, Vses. zaochnyi lesotekhn. in-t, 1964. 71 p.

(MIRA 18:7)

	ACCESSION NR: AT5020453 (4 UR/0000/64/000/000/0087/0104 UR/0000/64/000/000/0087/0104 AUTHOR: Krotova, N. A.; Sokolina, G. A.; Khrustalev, Yu. A.; Agranenko, N. P. 40
	Lomova, N. F.; Khomutov, A. M.
	TITLE: Change in the surface state of germanium during the formation of an adhesion
	bond with a polymer
	SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fizike poluprovod- nikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962. Poverkhnostnyye i
	kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semicon-
	ductors). Tomsk, Izd-vo Tomskogo univ., 1964, 87-104
	44.65 W.65,21
	TOPIC TAGS: polymer, semiconductor research, protective coating, surface property,
	crystal surface, lacquer/ LVS-31 lacquer, MBK-1 lacquer
	ABSTRACT: The authors study the effect which the functional groups in a polymer
·	have on the surface state of germanium in connection with the use of organic polymer_
	materials for protecting semiconductor devices from atmospheric action. The field
- 1	effect method was used for experimentally studying the surface conductivity with the application of a constant field. The slow changes in conductivity with time were
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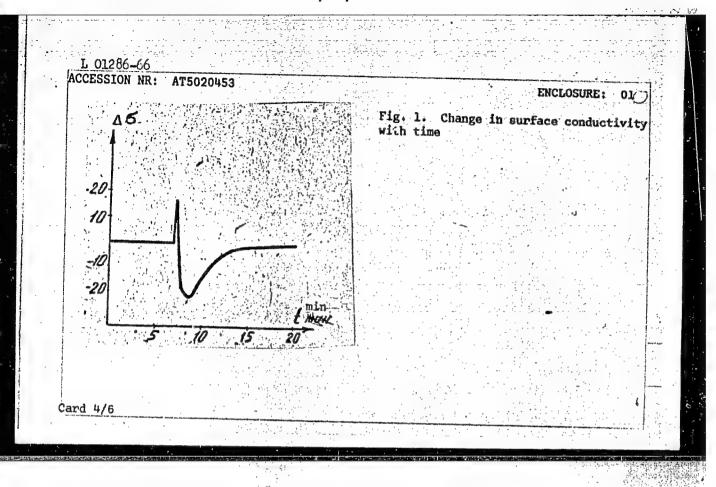
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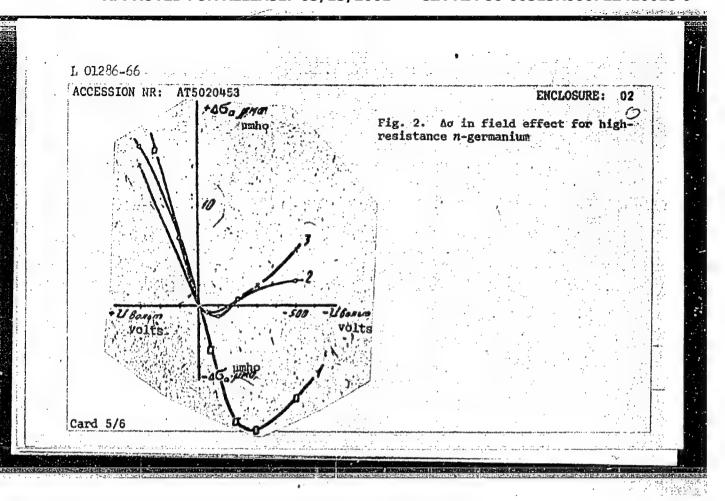
ACCESSION NR: AT5020453

recorded. The material studied was n-germanium with a resistivity of 40  $\Omega$  cm and a diffusion length of 2.5 mm. The specimen was a plate with dimensions of 20 x 5 x 5 mm cut from a single crystal of germanium parallel to plane (111). Ohmic contacts were fused to the ends of the specimen. The sample was etched in a peroxide-alkali mixture. The surface conductivity is shown as a function of time in fig. 1 of the Enclosure. Typical curves for conductivity in the field effect for high resistance n-germanium are given in fig. 2 of the Enclosure. These curves may be given as  $\Delta \sigma =$ f(U) or as  $\Delta \sigma = \phi(Q)$ , if Q is the induced charge of a condenser determined from the capacity. Here  $\Delta\sigma$  indicates the change in surface conductivity, and U gives the potential. Polymers of the vinyl series were studied with regard to the effect of the nature of functional groups and their concentration in the chain of a copolymer on the shape of  $\Delta \sigma = \phi(Q)$  curves plotted from measurements in vacuum. The results are shown in fig. 3 of the Enclosure. Curves are also given for copolymers of methylmethacrylate with methacrylic acid, for a gelatin-germanium interface (where the gelatin has functional radicals NH, OH and COOH) and for polyhydroxyethylene--a polymer which has no functional polar radicals and which has oxygen bound by single bonds in the chains. A comparison of the curves indicates that functional radicals change the position of Ao noticeably, while polymers without strongly polar groups have little effect on this parameter. Compositions of polymers were studied

Card 2/6

ACCESSION NR: AT5020453	The state of the s			ر در	
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along with individual po and LVS-31 offer more p	lymers. It was foun	d that two ind	ustrial la	cquers, MBK	(-1
However, the lacquer fil	Ms are much thicken	tsture than do	the indiv	idual polym	ers.
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conductor devices. Orig	art. has: 13 figu	res, 6 tables.		***************************************	CILL -
ASSOCIATION: none					
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S/020/62/147/006/031/034 B144/B186

247750

**AUTHORS:** 

Sokolina, G. A., Krotova, N. A., Khruatalev, Yu. A.

TITLE: Study of the properties of a polymer-semiconductor interface

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 6, 1962, 1409-1412

TEXT: The adsorption process occurring at polymer-semiconductor Interfaces was investigated by measuring the surface conductivity in the "field effect". The sample used was n-type germanium with a resistivity of 40 ohm cm and a diffusion length of 2.5 mm etched in a H<sub>2</sub>O<sub>2</sub>-alkali mixture and coated with films of linear vinyl-type polymers or methylmethacrylate-methacrylic acid copolymers. The field applied had a strength of 10° v/cm. First, the surface conductivity was measured in a sample of uncoated Ge: here the  $\Delta\sigma$ -versus-time curve showed a sharp rise when the field was applied, followed quickly by the minimum and returning then to the initial value. On Ge, two surface states were observed: the "fast" states at the Ge oxide - Ge interface and the "slow" states at the external face of the oxide or in the oxide. These slow surface states characterizing the adsorption and adhesion processes were studied by applying a constant Card 1/2

Study of the properties of a ...

s/020/62/147/006/031/034 B144/B186

voltage. Control studies of the semiconductor-air interface revealed the positive charge of the surface. The effect of the polymer films on the surface conductivity depended on the nature and concentration of the functional groups. An increase in the concentration of the COOH groups, which are electron-donors, changed the amount and the sign of the bending of the bands and also the quantity and the sign of the charge resulting from the adhesion bond between semiconductor and polymer. The experimental data were compared with those calculated from known theories. The importance of these investigations for the coating of semiconductors is

ASSOCIATION: Institut fizioheskoy khimii Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

PRESENTED:

July 19, 1962, by P. A. Rebinder, Academician

SUBMITTED:

July 16, 1962

Card 2/2

# DEMIN, V.M.; KHRUSTALEV, Yu.P.

Some characteristics of the early history of the Sea of Azov. Okeanologiia 4 nc.5:850-855 '64 (MIRA 18:1)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

L 44323-66 EWT(1) GW ACC NR AP6020984 (N)SOURCE CODE: UR/0213/66/006/003/0451/0457 AUTHOR: Mamykina, V. A.; Khrustalev, ORG: none 13 TITLE: Processes of abrasion and deposition in recent sedimentation, using the Sea of Azov as an example SOURCE: Okaanologiya, v. 6, no. 3, 1966, 451-457 TOPIC TAGS: physical oceanography, oceanist sedimentation, oceanist deposit, betten deposit, shoreline erosion, betten erosion ABSTRACT: Two organizations, the Rostov-on-Don State University (1959-1963) and the Institute of Oceanography, AS USSR (1939-1961) have investigated core samples taken from the bottom sediments of the Sea of The thicknesses, grain-size, and composition of the most recent and contemporary deposits were analyzed specifically to determine rates and locations of erosion and deposition. Results obtained were compared with information obtained from bathymetric charts of the area, which incorporated information collected during the 1803-1956 period. Rates of recent epeirogenic movements were determined by geological and geomorphological methods and were checked against repeated leveling measurements. The area was divided into three characteristic regions: Card 1/2 UDC: 551,351 (262,56) Card 2/4 015

L 18834-66 EWT(1) GW

ACC NR: AP6004393

SOURCE CODE: UR/0020/66/166/003/0688/0690

AUTHOR: Panov, D. G.; Khrustalev, Yu. P.

ORG: none

TITLE: Recent tectonic movements in the coast line and floor of the Sea of Azov

SOURCE: AN SSSR. Doklady, v. 166, no. 3, 1966, 688-690

TOPIC TAGS: tectonics, ocean floor topography

ABSTRACT: The literature on tectonic movements in the Azov area is reviewed and the following conclusions are presented: (1) the sinking of the coast line and the littoral portions of the floor belong to the last stage of the Quaternary; (2) this sinking has been taking place over the last 5000 years; (3) the sinking of the coast line and the Azov basin floor is recent; (4) the greatest part of the Taganrog Bay area and the northern part of the Sea of Azov to the west of it, are subject to movements at a rate of 2 to 3 mm per year; (5) the speed of the tectonic movement decreases to 1 to 2 mm per year along the coastal strip of the Taganrog Bay and near the northern sea coast; (6) the largest recent movements, up to 3 mm

Card 1/2 UDC: 551.24(471.6)

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per year, predoming in the Sea calpine folding; dicates a significate the Quaternary principle in is given. Principle in figure.	and (8) the icant tecton	speed of re ic factor;	conically tectoring the devi	o the Ker onic movem clopment o	ch-Taman ent in t of the Se	' pereclina he Azov reg a of Azov d	l, ion in- uring
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BABAK, V.J., ZALOZH, F.K., KHRUSTALEVA, F. YE.

Viticulture - Izmail Province

Our methods of caring for wineyards. Vin. SSSR no. 4, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED.

S/189/61/000/006/005/005 D228/D304

AUTHORS:

Dunayeva, K.M., Ippolitova, Ye.A. and Khrustaleva,

G.D.

TITLE:

Investigating the thermal stability of uranyl

sulfate

PERIODICAL:

Moscow. Universitet. Vestnik. Seriya II, khimiya,

no. 6, 1961, 35-37

TEXT: In studying the thermal decomposition of uranyl sulfate the authors were primarily interested in ascertaining the temperature of dissociation of the anhydrous salt. The trihydrate was prepared by dissolving U<sub>3</sub>O<sub>8</sub> in a solution of H<sub>2</sub>SO<sub>4</sub> at 80 and evaporating the filtrate, when crystals containing 56.95% U and 8.04% S were obtained. On heating the UO<sub>2</sub>SO<sub>4</sub> • 3H<sub>2</sub>O the following changes were observed: the loss of 1 1/2 molecules Card 1/2

#### CIA-RDP86-00513R000722410015-9 "APPROVED FOR RELEASE: 03/13/2001

KARUSTALEVA

Country: USSR

Category: Human and Ani: al Physiology. Nervous System.

Cerebral Cortox

Abs Jour: RZhBiol., No 19, 1958, 89199

Author : Khrustaleva, G.F.

Inst

Title : Changes in the Electroencephalogram of the Ferale

Rabbit Under the Effect of Progestrone, Folliculin

and Pollowing Costration

43

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Patrick Lings Orig Pub: Dyul. Eksperin. biol. i meditsiny, 1957, No 1,

Appendix, 126-129.

Abstract: The administration to female rabbits of projesterone

(I-20 mgs of an oil solution) caused the appearance in the EEG of slow waves and a decrease of motor

Card : 1/2 Lat Normal - Pathological Physiology Inst. Obstituce . Hymeology AMS VSSR T-88

CIA-RDP86-00513R000722410015-9" APPROVED FOR RELEASE: 03/13/2001

# KHRUSTALEVA, G.F.

Detection of anovulatory cycles by means of some function tests. Akush. i gin. no.1:44-48 '63. (MRA 17:6)

1. Iz otdeleniya neoperativnoy ginekologii (zav. - prof. Ye.P. Mayzel') Instituta akusherstva i ginekologii (dir. - prof. M.A. Petrov-Maslakov) AMN SSSR.

KHRUSTALEVA Country : USSR Category : Farm Animals. Q-1 General Problems. Abs. Jour : Ref Zhur-Biol., No 16, 1958, 73963 : Khrustaleva, I. V. Author Loscow Veterinary Academy. Institut. : Arterial Vessels of the Bicipital Shoulder Title Muscle in Domestic Animals. Orig Pub. :Tr. Mosk. vet. akad., 1956, 10, 261-279 Abstract : In 23 horses, 18 heads of cattle, 10 pigs, and 14 dogs the bicipital muscle of the shoulder was investigated. It was established that the proximal sector of the muscle under investigation is less intensively supplied by the perimuscular medial shoulder artery than the distal sector which is vascularized by the arteries of the bicipital shoulder muscle. The arteries of the bicipital muscle in horses and dogs are relatively wider in diameter and shorter in length. Card: 1/4

GUSEVA, L.A.; ZDANOVSKAYA, Ya.L.; KRIVOSHEINA, N.A.; KHRUSTALEVA, I.V.; CHEBOTAREV, I.T.; DREVLYANSKAYA, N.I., red.; PROKOF'YEVA, L.N., tekhn. red.

[Manual for laboratory work in the anatomy of farm animals] Posobie k prakticheskim zaniatiiam po anatomii sel'skokhoziaistvennykh zhivotnykh. Moskva, Sel'khozizdat, 1962. 170 p.

(MIRA 15:7)

(Veterinary anatomy)

#### KHRUSTALEVA, L.A.

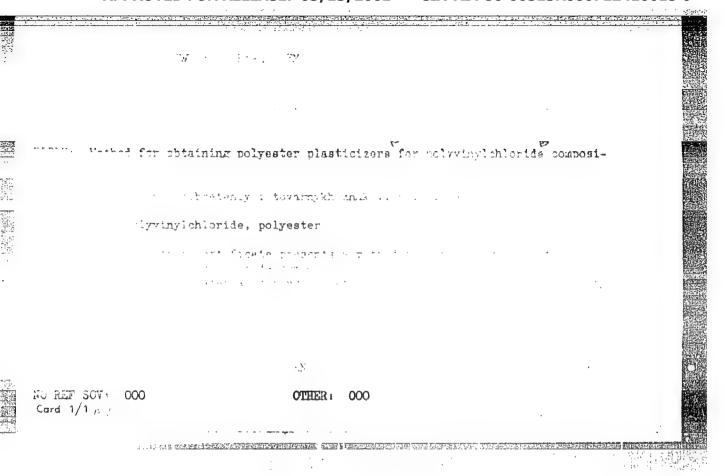
Cheracteristics of salmonelloses in Perm. Zhur. mikrobiol., epid. 1 immun. 41 no.11:122-125 '65. (MIRA 18:5)

1. Permskiy institut vaktsin i syvorotok.

MIRSKOVA, V.N.; GITTERMAN, L.A.; KHRUSTALEVA, L.A.; KALUGINA, L.V.

Bacterial pollution and pyrogenicity of diaferm-3 sera. Nauch. osn. proizv. bakt. prep. 10:206-212 '61. (MIRA 18:7)

1. Permskiy institut waktsin i syvorotok.



HORRIN, Pote Manas yearing, price, MELECKAY, Nikitay

Alex Androvint, profes, DAREVSKY, Alexagner Togeforing,

dots; KUKHARKIN, Tevgeniv Supparevint, dots.;

KHESTALKYA, Nile, red.

[Theoretical principles of electrical engineering] Tecrationary of the concept of the principles of the same and the same

STEPIN, Petr Andreyevich; KHRUSTALEVA, N.I., red.; STOLYAROVA, M.T., tekhn.red.

[Strength of materials] Soprotivlenie materialov. Moskva, Gos.izd-vo "Vysshaia shkola," 1960. 366 p.

(MIRA 14:4)

(Strength of materials)

BELYAVSKIY, Samuil Moiseyevich; KHRUSTALEVA, N.I., red.

[Manual for the solution of problems on the strength of materials] Rukovodstvo k resheniiu zadach po soprotivle-

miu materialov. Moskva, Vysshaia shkola, 1964. 315 p. (MIRA 17:8)

VENIKOV, Valentin Andreyevich; LITKENS, Irina Vladimirovna.
Prinimali uchastiye SOLDATKINA, L.A., dots.; VASIN, V.P., inzh.; KHRUSTALEVA, N.I., red.

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